

**REMARKS**

Favorable reconsideration is requested in view of the above amendments and following comments. Claims 26-47 have been cancelled without prejudice. Claim 1 has been amended. Support for this amendment can be found at least at page 7, lines 17-21, page 8, lines 24-30; page 9, lines 4-10, lines 14-19, and lines 20-24. New claim 48 has been added. Support for claim 48 can be found at least at page 7, lines 17-21; and page 10, lines 15-20. Claims 1-3, 8-11, 14-17, and 48 are now pending.

**Rejection under 35 U.S.C. § 112**

Claims 1-3, 8-11, 14-17, and 26-47 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Applicants respectfully traverse this rejection. Applicants do not concede the correctness of the rejection.

Claims 26-47 have been cancelled, rendering the rejection moot as to these claims.

Solely to advance prosecution of the application, claim 1 has been amended to remove the phrases "significantly reducing the microbial population" and "food additives and food ingredients." In addition, claim 1 has been amended to clarify that only one food product must be irradiated and that the classes of food products are alternatives (i.e. it is not necessary that each class of food product be used). In addition, claim 1 clearly requires a certain irradiation level depending upon which class of food product is being treated. Applicants respectfully request the withdrawal of the rejection with respect to claim 1.

The Examiner rejected claim 1 for including the phrase "spices, dried vegetable seasonings, and herb." This phrase has been deleted from claim 1, however, it has been included in claim 48. Applicants respectfully contend that one having skill in the art would recognize what food products fall within this classification. Accordingly, Applicants respectfully contend claim 48 satisfies 35 U.S.C. § 112, paragraph two, as well.

**Rejection under 35 U.S.C. § 102****Todd., Jr.**

Claims 1-3 and 14-15 were rejected under 35 U.S.C. § 102(e) as being anticipated by Todd, Jr. (U.S. Patent No. 6,099,879). Applicants respectfully traverse this rejection, and respectfully request reconsideration in view of the following comments.

Claim 1 requires irradiating the food product with amounts less than the approved maximum level for particular classes of food products. Specifically, when the food product is at least one of pork, fresh vegetables, fruit, fresh red meat, or frozen red meat, the food product must be irradiated at a level of about 0.5 kGy or less. On the other hand, when the food product is at least one of fresh poultry, frozen poultry, or eggs in their shell, claim 1 requires irradiation at a level of about 0.3 kGy or less.

Todd, Jr. does not disclose or suggest this limitation. Todd, Jr. is directed to a method for combatting adverse effects on organoleptic properties of food products caused by irradiation. (Col. 1, ll. 23-42). Todd, Jr. fails to suggest a reduction in the levels of irradiation necessary to adequately reduce microbial content. For example, Todd, Jr. teaches irradiating ground beef with 4.5 kGy, irradiating turkey at 3 kGy, irradiating pork at 4.5 kGy, irradiating chicken was at 3.5 kGy, and irradiating frozen meat at 7 kGy. See column 9, lines 4 - 6; column 11, lines 47 - 49; column 12, lines 10 - 20; column 13, lines 40 - 41; and column 13, lines 60 - 62 of Todd, Jr., respectively. All irradiation levels are above the levels required under claim 1. Applicants respectfully request withdrawal of the rejection.

Claims 2-3 and 14-15 depend from claim 1, an allowable base claim. For at least this reason, Applicants respectfully contend Todd, Jr. fails to render these claims obvious as well.

Claim 48 requires irradiation of a food product at a level of 1.5 kGy, wherein the food product is at least one of spices, dried vegetable seasonings, or herb, to reduce the microbial content of said food product.

Todd, Jr. fails to teach, or even suggest, this feature of claim 48. Todd does not teach irradiation of rosemary to reduce the microbial content in the rosemary. Todd, Jr. teaches using rosemary to combat adverse affects that irradiation has on food products. Thus, rosemary is used to obtain a desirable flavor. Nowhere does Todd, Jr. teach that the microbial content of the rosemary is reduced. Even if the rosemary is irradiated under the method taught by Todd, Jr.,

nowhere does Todd, Jr. teach irradiation at a level of less than about 1.5 kGy, as required by claim 48. For at least this reason, Applicants respectfully contend Todd, Jr. fails to anticipate claim 48.

Ottke et al.

Claims 1-3, 14-15, 26-28, and 33-34 were rejected under 35 U.S.C. § 102(b) as being anticipated by Ottke et al. (U.S. Patent No. 3,057,735). Applicants respectfully traverse this rejection, and respectfully request reconsideration in view of the following comments. Claims 26-28 and 33-34 have been cancelled, rendering the rejection moot as to those claims.

As previously discussed, claim 1 requires irradiating the food product with reduced levels of irradiation. When the food product is at least one of pork, fresh vegetables, fruit, fresh red meat, or frozen red meat, the food product must be irradiated at a level of about 0.5 kGy or less. When the food product is at least one of fresh poultry, frozen poultry, or eggs in their shell, claim 1 requires irradiation at a level of about 0.3 kGy or less. Applicants have discovered that by combining the use of an antimicrobial agent with irradiation of a food product, the irradiation level can be reduced without affecting the ability to adequately reduce the microbial content of the food product.

Ottke does not disclose or suggest this limitation. Ottke is directed to a method of extending the shelf-life of fresh meats and fish. (Col 2, ll. 9-11). Nowhere does Ottke teach, or even suggest, that irradiation levels can be reduced by using an antimicrobial agent in conjunction with irradiation. In addition, Ottke teaches that "at least" 65,000 rep (0.65 kGy), must be used to treat meat. (Col. 3, ll. 18-26). Thus, Ottke teaches away from irradiation at levels below 0.65 kGy. This level of irradiation is higher than any of those included in claim 1. For at least this reason, Applicants respectfully contend Ottke fails to anticipate claim 1.

Claim 1 further requires contacting the food product with an antimicrobial agent, the antimicrobial agent comprising peroxycarboxylic acid, fatty acid, halogen containing antimicrobial agent, quaternary ammonium antimicrobial agent, peroxide, condensed phosphate, or mixtures thereof.

Ottke fails to disclose, or even suggest, this feature of claim 1. Ottke teaches the use of tetracycline antibiotics. (Col. 2, ll. 47-60). Tetracycline is a complex antibiotic, used medicinally, that exerts antimicrobial activity by interfering with the metabolism of microbes.

The antimicrobial agents of claim 1, however, are simple agents, such as oxidizing agents, that cause the chemical death of the microbes. Nowhere does Ottke teach or suggest the use of the antimicrobial agents such as those required by claim 1. For at least this reason as well, Ottke fails to anticipate claim 1.

Claims 2-3 and 14-15 depend from claim 1, an allowable base claim. For at least this reason, Applicants respectfully contend Ottke fails to render these claims obvious as well.

Claim 48 is directed to the treatment of spices, dried vegetable seasonings, and herbs. Like claim 1, claim 48 requires contacting the food product with an antimicrobial agent, the antimicrobial agent comprising peroxy-carboxylic acid, fatty acid, halogen containing antimicrobial agent, quaternary ammonium antimicrobial agent, peroxide, condensed phosphate, or mixtures thereof.

Ottke also fails to teach treatment of food products other than fresh meats and fish. Different food products require different levels of irradiation. In addition, Ottke fails to teach contacting the food product with any of the claimed antimicrobial agents. For at least these reasons, Applicants respectfully contend Ottke fails to anticipate claim 48.

### **Rejection under 35 U.S.C. § 103**

#### **Ottke et al. in view of Hilgren et al.**

Claims 8-11, 29-32, and 37-45 were rejected under 35 U.S.C. § 103(a) as being obvious over Ottke et al. in view of Hilgren et al. (U.S. Patent No. 6,514,556). Applicants respectfully traverse this rejection, and respectfully request reconsideration in view of the following comments. Claims 29-32, and 37-45 have been cancelled, rendering the rejection moot as to those claims.

Pursuant 35 U.S.C. § 103(c) Hilgren cannot be considered prior art in support of an obviousness rejection as it was owned by the same assignee of the application at the time of the invention. The published application (U.S. 2002/0119743), however, was published less than one year before filing of the current application. Thus, Applicants will address the rejection as based upon the published application.

Claims 8-11 depend from claim 1, which requires irradiation of various food products at levels of about 0.3 kGy or less, or about 0.5 kGy or less, depending upon the class of food

product being treated. As previously discussed, Ottke fails to teach, or even suggest, irradiating any food products with less than 0.65 kGy. Hilgren does not discuss irradiation of food products. Accordingly, Ottke in view of Hilgren fails to render claims 8-11 obvious.

Moreover, there is no motivation to combine the references. Ottke teaches the use of tetracycline antibiotics. There is no indication that the peroxycarboxylic acids taught by Hilgren could be substituted for the tetracycline antibiotics taught by Ottke. Different antibiotics function in different manners, and not all antibiotics can be substituted for each other. As previously discussed, tetracycline is a complex antibiotic that affects the metabolism of microbes, while peroxycarboxylic acids are simple oxidizing agents that cause chemical death. There is simply no suggestion that peroxycarboxylic acids would function under the method taught by Ottke.

#### Ottke in view of JP 11339701A

Claims 16-17 and 35-36 were rejected under 35 U.S.C. § 103(a) as being obvious over Ottke et al. in view of JP 11339701A. Applicants respectfully traverse this rejection. Claims 35-36 have been cancelled, rendering the rejection moot as to those claims.

Claims 16-17 depend from claim 1, which requires irradiation of various food products at levels of about 0.3 kGy or less, or about 0.5 kGy or less, depending upon the class of food product being treated. As previously discussed, Ottke fails to teach, or even suggest, irradiating any food products with less than 0.65 kGy. JP 11339701A also fails to teach or suggest irradiating food products at the claimed levels. Accordingly, Ottke in view of JP 11339701A fails to render claims 16-17 obvious.

#### Ottke in view of Hilgren and JP 11339701A

Claims 46-47 were rejected under 35 U.S.C. § 103(a) as being obvious over Ottke et al. in view of Hilgren et al. and JP 11339701A. Applicants respectfully traverse this rejection. Claims 46-47 have been cancelled, rendering the rejection. Moreover, as previously discussed, none of the cited references, even if considered in combination, suggest irradiating the claimed food products at the levels required by claims 1 and 48.

**Conclusion**

In view of the above amendments and remarks, Applicant respectfully requests a Notice of Allowance. If the Examiner believes a telephone conference would advance the prosecution of this application, the Examiner is invited to telephone the undersigned at the below-listed telephone number.

Respectfully submitted,

MERCHANT & GOULD P.C.  
P.O. Box 2903  
Minneapolis, Minnesota 55402-0903  
(612) 332-5300

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PATENT TRADEMARK OFFICE

Mark T. Skoog

Mark T. Skoog  
Reg. No. 40,178  
MTS:TSW